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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/523,309	09/26/2005	Ralf Henne	10191/3752	7933

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KENYON & KENYON LLP
ONE BROADWAY
NEW YORK, NY 10004

EXAMINER

KAPLAN, HAL IRA

ART UNIT	PAPER NUMBER
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2836

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/523,309	Applicant(s) HENNE ET AL.	
	Examiner Hal I. Kaplan	Art Unit 2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 November 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: The section entitled "Summary" (page 1, line 5 - page 2, line 26) is unclear. Page 1, lines 5-10 state that "an example ... in accordance with the present invention may have the advantage that ... cases of a fault ... can lead to an unintentional triggering of restraint devices". This appears to be a problem in the prior art that the invention is directed to solving (disadvantage of the prior art), not an advantage of the invention. Page 1, lines 14-19 state that "it may be particularly advantageous that the resistance ... is not critical", which appears to be an advantage but is unclear, and "due to the significant oxide layer formation, it is difficult to guarantee ... the very low-impedance connection which may be necessary, which sounds like a disadvantage of the prior art. Page 1, lines 21-22, "the electrical isolation" and "the electrically isolated supply voltage" lack antecedent basis in the specification. It is not clear what the advantages of the invention are or exactly what the invention is, and it is not clear what problem(s) in the prior art the invention is directed to solving. The section entitled "Summary" (page 1, line 5 - p[age 2, line 26) should be deleted, and replaced with two sections, a first section entitled "background of the invention" or "description of related art", describing the prior art and explaining the problem(s) or disadvantage(s) in the prior art that the invention is directed to solving or overcoming, and a second section entitled "brief summary of the invention", which briefly summarizes exactly what the invention is and how it overcomes the problem(s) of the prior art and/or is advantageous.

Appropriate correction is required.

Drawings

2. The drawings were received on November 14, 2007. These drawings are accepted.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 9, 10, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by the German patent of Berberich et al. (198 29 730).

As to claim 9, Berberich discloses a control unit in a vehicle, comprising: a converter (12c, 2b", 2b', 13a)) having an electrical isolation (2b", 2b') from a main electrical system (3), wherein the converter (2b", 2b') is configured for supplying power to at least one component (1); at least one coupling element (2a", 2a') having an electrical isolation from the main electrical system (3) and connectable to the at least one component (1), the coupling element (2a", 2a') being used for data transmission; and a ground connection assigned to the at least one component (1) (see Figure 1; ground assigned to component 1 is near terminal 13).

As to claim 10, the converter (12c, 2b", 2b', 13a) includes a transformer (2b", 2b') for electrical isolation, a DC/AC voltage converter (12c) being provided on a primary side, and a rectifier (13a) being provided on a secondary side (see Figure 1).

As to claim 16, the at least one component (1) is electronics of the control unit (see Figure 1).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berberich in view of the US patent of Seki et al. (4,667,283).

As to claim 11, Berberich discloses all of the claimed features, as set forth above, except for the claimed oscillator. Seki discloses a DC/AC voltage converter (13,34,45) including an oscillator (456,457) (see column 3, lines 46-47; column 4, lines 45-50; and Figures 2 and 3). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have used the DC/AC converter of Seki in the circuit of Berberich, because the DC/AC converter of Seki is efficient and has a good response characteristic because the efficiency can be improved by lowering the chopper frequency in the event of light-load operation.

As to claim 12, the DC/AC voltage converter of Seki includes a chopper (11) (see column 3, lines 46-47; column 4, lines 4-6; and Figure 2).

9. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Berberich in view of the US patent of Has (6,650,030).

As to claim 13, Berberich discloses all of the claimed features, as set forth above, except for the claimed optocoupler. Has discloses an optocoupler (21) which is used to supply power from a power supply (L,N) to a component (1). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have used an optocoupler in the circuit of Berberich, in order to minimize power draw from the data network during switching (see column 2, lines 61-64).

10. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Berberich in view of the US patent of Young et al. (7,061,139).

As to claim 14, Berberich discloses all of the claimed features, as set forth above, except for the claimed energy store. Young discloses an energy store (74) which runs a converter (64) in case a power supply (10, 10" or 60) is disconnected (see column 11, lines 3-24). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have used an energy store in the circuit of Berberich, in order to allow the circuit to continue to run in the event of an interruption in the main power supply.

11. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Berberich in view of the US patent of Belau et al. (5,725,242).

As to claim 15, Berberich discloses all of the claimed features, as set forth above, except for the claimed ignition circuit. Belau discloses an ignition circuit (squib) control for a restraint device (airbag) in a vehicle (see column 2, lines 48-66). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have used the circuit of Berberich with an ignition circuit control for a restraint device in order to provide fault-resistant power and data transmission to the restraint device.

Response to Arguments

12. Applicant's arguments filed November 14, 2007 have been fully considered but they are not persuasive.

13. As to claim 1, the Applicant states that the Berberich reference does not disclose the claimed electrical isolation of the converter and coupling element from the main electrical system, or a ground connection assigned to the component. Applicant's arguments are not persuasive. The connecting device (1), not the control unit 6 or distributor module 6', is cited as the component. The converter includes a transformer

(2) which provides isolation between the main electrical system (3) and the component (1). The ground connection proximate terminal 13 is assigned to the component (1).

Thus, the Berberich reference does disclose all of the claimed features.

Conclusion

14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hal I. Kaplan whose telephone number is 571-272-8587. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on 571-272-2084. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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